UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,916	01/22/2004	Daniel Manuel Dias	SVL920030091US1(I10872001	6138

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Caesar, Rivise, Bernstein, Cohen & Pokotilow Ltd.
11th Floor, Seven Penn Center
Philadelphia, PA 19103

EXAMINER
PARK, JEONG S

ART UNIT	PAPER NUMBER
2454	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/16/2009*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *35-50* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *35-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This communication is in response to Application No. 10/762,916 filed on

1/22/2004. The amendment presented on 2/16/2009, which cancels claim 34, amends

claims 35-48 and adds claim 50, is hereby acknowledged. Claims 35-50 have been

examined.

Claim Rejections - 35 USC § 112

2.   The amendment presented on 2/16/2009 cancelling claim 34 obviates the

outstanding 35 USC 112 rejections, and they are hereby withdrawn.

Double Patenting

3.   The amendment presented on 2/16/2009 cancelling claim 34 obviates the

outstanding 35 USC 101 rejections, and they are hereby withdrawn.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 35-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Herington (U.S. Pub. No. 2005/0102387 A1) in view of Sankaranarayan et al.

(hereinafter Sankaranarayan)(U.S. Patent No. 6,799,208 B1).

Regarding claim 50, Herington teaches as follows:

A method for supporting a transaction application (interpreted as one application

355 in figure 3) and a parallel application workload (interpreted as the other application

360 in figure 3) in a clustered system (320 or 330 in figure 3) utilizing a service level

agreement (interpreted as performance goals, see, e.g., page 2, paragraph [0022]), the

clustered system having clustered system resources (each cluster supports both

applications, see, e.g., page 2, paragraph [0021])(the incorporated Romero et al.

(hereinafter Romero)(U.S. Pub. No. 2002/0069279 A1) teaches an apparatus and

method for routing a transaction to a server based on a requested level of service

associated with the transaction, see, e.g., abstract), the method comprising:

allocating the clustered system resources to the transaction application and to

the parallel application (workload manager dynamically allocate and adjust computer

resources between applications based on performance goals and performance

information, see, e.g., page 2, paragraph [0024]).

Herington does not teach reallocating to the transaction application a portion of

the clustered system resources allocated to the parallel application in response to

identifying a violation of the service level agreement associated with a high load level on

the clustered system resources allocated to the transaction application.

Sankaranarayan teaches as follows:

resource manager (102 in figure 2) assigns resources to all descriptors contained

in the listed activities using a provider supplied resource allocation function in a priority

based scheme (see, e.g., col. 11, lines 45-62 and figure 3), wherein the examiner

interpreted the transaction application as higher priority activity and the parallel

application as lower priority activity;

reallocating the resource from lower priority activity (parallel application) to the

higher priority activity (transaction application) to satisfy the configuration of the higher

priority activity (see, e.g., col. 12, lines 36-45 and col. 15, lines 8-17 and figure 6); and

the lower priority activities are then given an opportunity to reduce its resource

reservations in a controlled manner to free of resources for reallocation to higher priority

activities (see, e.g., col. 15, lines 19-42 and figure 6).

It would have been obvious for one of ordinary skill in the art at the time of the

invention to modify Herington to include a resource manager allocating and reallocating

a resource provider in a priority based scheme as taught by Sankaranarayan in order to

efficiently allocate and reallocate the resources to proper activities.

Regarding claim 35, Herington in view of Sankaranarayan presented above per

claim 50 for all the limitations on claim except for predicting performance requirements

in the service level agreement.

The incorporated Romero teaches that the server index can be based on known

capabilities and predicted service levels of the servers in the server pool based on past

performance, see, e.g., page 4, paragraph [0033]).

Regarding claims 36-38, Herington in view of Sankaranarayan teach all the

limitations of claim as presented above per claim 50.

It would have been obvious for one of ordinary skill in the art at the time of the

invention the nodes (240-250 in figure 2 taught in Herington) include an uninitialized

(one of any intersecting nodes 242-248 is installed for the application 255 but has not

been used for the application execution), uninstalled (the node 250 is not installed with

the application 255) or unassigned node (any node newly included in either clusters).

Regarding claims 39 and 40, the plurality of nodes are server computers (see,

e.g., page 1, paragraph [0014]) are capable of running any applications including stock

trades and optimization of a stock portfolio.

Regarding claim 41, Herington teaches as follows:

wherein the service level agreement (interpreted as performance goals)

negotiated with the client for the transaction application workload is also applicable to

the parallel application workload (performance goals for both of two applications, see,

e.g., page 2, paragraph [0022]).

Regarding claim 42, Romero teaches as follows:

wherein the performance requirements for execution of the transaction

application workload specified in the service level agreement comprises throughput

requirements (the requested level of service can be a specific parameter such

processing capacity, see, e.g., page 2, paragraph [0023]).

Regarding claim 43, Herington teaches as follows:

wherein the performance requirements for execution of the transaction

application workload specified in the service level agreement comprises response time

requirements (performance goals include response time, see, e.g., page 2, paragraph

[0022]).

Regarding claim 44, Romero teaches as follows:

wherein the performance requirements for execution of the transaction application workload specified in the service level agreement comprises availability requirements (status of a particular server such as availability, see, e.g., page 3, paragraph [0027]).

Regarding claims 45 and 46, it is well known in the art at the time of the invention to include the downtime requirement and penalty function in the SLA.

Regarding claim 47, Herington teaches as follows:

monitoring one or more of a transaction rate, a transaction response time, availability of a server node, and utilization of a server node (workload manger receives performance information from applications, see, e.g., page 2, paragraph [0023]).

Regarding claim 48, Herington teaches as follows:

wherein reassignment of the one or more server nodes assigned to execute the parallel application workload to the execution of the transaction application workload is based on prioritization of the service level agreement negotiated for the transaction application workload (relative priority of importance associated, see, e.g., page 2, paragraph [0022]).

The incorporated McCarthy further teaches that the workload manager allocates application's partition bases on the goal information and priority information from a user or administrator and performance information (see, e.g., col. 2, lines 27-40).

Regarding claim 49, it is obvious to negotiate the priority based on the penalty listed in the SLA.

Response to Arguments

6.   Applicant's arguments filed 2/16/2009 have been fully considered but they are

not persuasive.

A.   Summary of Applicant's Arguments

In the remarks, the applicant argues as followings:

Neither Herington, Sankaranarayan nor Merkling teach the reallocation of

resources executing parallel applications in the same clustered system to help run the

transaction applications when service level agreements are violated.

B.   Response to Arguments:

In response to argument, Herington teaches that the workload manager

dynamically allocates and adjusts computer resources between applications based on

performance goals and performance information (see, e.g., page 2, paragraph [0024]).

Herington does not teach reassigning the node but reassigning computer

resources.

Sankaranarayan teaches as follows:

resource manager (102 in figure 2) assigns resources to all descriptors contained

in the listed activities using a provider supplied resource allocation function in a priority

based scheme (see, e.g., col. 11, lines 45-62 and figure 3), wherein the examiner

interpreted the transaction application as higher priority activity and the parallel

application as lower priority activity;

reallocating the resource from lower priority activity (parallel application) to the

higher priority activity (transaction application) to satisfy the configuration of the higher

priority activity (see, e.g., col. 12, lines 36-45 and col. 15, lines 8-17 and figure 6); and

the lower priority activities are then given an opportunity to reduce its resource

reservations in a controlled manner to free of resources for reallocation to higher priority

activities (see, e.g., col. 15, lines 19-42 and figure 6).

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JEONG S. PARK whose telephone number is (571)270-

1597. The examiner can normally be reached on Monday through Friday 7:00 - 3:30

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. P./
Examiner, Art Unit 2454
June 4, 2009

/Nathan J. Flynn/
Supervisory Patent Examiner, Art Unit 2454